

U.S. Department of Commerce, Patent and Trademark Office		Atty Docket No.	Serial No.
		2003-0125-01	10/803,526
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant(s)	
(Use several sheets if necessary)		Robert P. Akins, et al.	
Filing Date		Group	
March 17, 2004		Unassigned 2881	

U.S. Patent Documents

*Examiner, Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
len	A	2,759,106	8/14/56	Hans Wolter	250	53	
	B	3,150,483	5/10/62	Mayfield, et al.	60	35.5	
	C	3,232,046	2/1/66	Rudolf Meyer	50	35.5	
	D	3,279,176	10/18/66	Robert H. Boden	60	202	
	E	3,746,870	7/17/73	Donald M. Demarest	250	227	
	F	3,960,473	6/1/76	Thomas Harris	425	467	
	G	3,961,197	6/1/76	John M. Dawson	250	493	
	H	3,969,628	7/13/76	Roberts, et al.	250	402	
	I	4,042,848	8/16/77	Ja Hyun Lee	313	231.6	
	J	4,088,966	5/9/78	Michael A. Samis	313	231.5	
	K	4,143,275	3/6/79	Mallozzi, et al.	250	503	
	L	4,162,160	7/24/79	Gerald J. Witter	75	246	
	M	4,203,393	5/20/80	Dante S. Giardini	123	30	
	N	4,504,964	3/12/85	Cartz, et al.	378	119	
	O	4,536,884	8/20/85	Weiss, et al.	378	119	
	P	4,538,291	8/27/85	Seiichi Iwamatsu	378	119	
	Q	4,596,030	6/17/86	Herziger, et al.	378	119	
	R	4,618,971	10/21/86	Weiss, et al.	378	34	
	S	4,626,193	12/2/86	Ronald A. Gann	431	71	
	T	4,633,492	12/30/86	Weiss, et al.	378	119	
len	U	4,635,282	1/6/87	Okada, et al.	378	34	

Foreign Patent Documents

							Translation	
		Document	Date	Country	Class	Subclass	Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Examiner	len	Date Considered	07-10-06
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en	V	4,751,723	6/14/88	Gupta, et al.	378	119		
	W	4,752,946	6/21/88	Gupta, et al.	378	119		
	X	4,837,794	6/6/89	Riordan, et al.	378	119		
	Y	5,023,897	6/11/91	Neff, et al.	378	122		
	Z	5,027,076	6/25/91	Horsley, et al.	324	674		
	AA	5,102,776	4/7/92	Hammer et al.	430	311		
	BB	5,126,638	6/30/92	Rolf Dethlefsen	315	326		
	CC	5,142,166	8/25/92	Daniel L. Birx	307	419		
	CC	5,313,481	5/17/94	Cook et al.	372	37		
	DD	5,411,224	5/2/95	Dearman, et al.	244	53		
	EE	5,448,580	9/5/95	Birx et al.	372	38		
	FF	5,504,795	4/2/96	Malcolm McGeoch	378	119		
	GG	5,729,562	3/17/98	Birx et al.	372	38		
	HH	5,763,930	6/9/98	William N. Partlo	250	504		
	II	5,866,871	2/2/99	Daniel L. Birx	219	121		
	JJ	5,936,988	8/10/99	Partlo et al.	372	38		
	KK	5,963,616	10/5/99	Silfvast, et al.	378	122		
	LL	6,031,241	2/29/00	Silfvast, et al.	250	504		
	MM	6,039,850	3/21/00	Stephen C. Schulz	204	192.15		
en	NN	6,172,324	1/9/01	Daniel L. Birx	219	121.57		
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len	OO	6,051,841	4/18/00	William N. Partlo	250	504		
	PP	6,064,072	5/16/00	Partlo, et al.	250	504		
	QQ	6,195,272	2/27/01	Joseph E. Pascente	363	21		
	RR	6,452,199	9/7/02	Partlo, et al.	250	504		
	SS	6,566,667	5/20/03	Partlo, et al.	250	504		
	TT	6,566,668	5/20/03	Rauch, et al.	250	504		
	UU	6,576,912	6/10/03	Visser, et al.	250	492.2		
	VV	6,586,757	7/1/03	Melnychuk, et al.	250	504		
	WW	2001/0055364	12/27/01	Kandaka, et al.	378	119		
	XX	2002/0100882	8/1/02	Partlo, et al.	250	504		
	AA	2002/0163313	1/9/03	Ness, et al.	315	111.01		
	AB	2002/0168049	11/14/02	Schriever, et al.	378	119		
	AC	2003/0006383	1/9/03	Melnychuk, et al.	250	504		
	AD	2003/0068012	4/10/03	Ahmad, et al.	378	119		
len	AE	2003/0219056	11/27/03	Yager, et al.	372	57		
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)								
len	AF	Andreev, et al., "Enhancement of laser/EUV conversion by shaped laser pulse interacting with Li-contained targets for EUV lithography", <u>Proc. Of SPIE</u> , 5196:128-136, (2004)						
	AG	Apruzese, J.P., "X-Ray Laser Research Using Z Pinches," <u>Am. Inst. of Phys.</u> 399-403, (1994).						
	AH	Bollanti, et al., "Compact Three Electrodes Excimer Laser IANUS for a POPA Optical System," <u>SPIE Proc.</u> (2206)144-153, (1994).						
	AI	Bollanti, et al., "Ianus, the three-electrode excimer laser," <u>App. Phys. B (Lasers & Optics)</u> 66(4):401-406, (1998).						
	AJ	Choi, et al., "A 10 ¹³ A/s High Energy Density Micro Discharge Radiation Source," <u>B. Radiation Characteristics</u> , p. 287-290.						
	AK	Choi, et al., "Fast pulsed hollow cathode capillary discharge device," <u>Rev. of Sci. Instrum.</u> 69(9):3118-3122 (1998).						
	AL	Fomenkov, et al., "Characterization of a 13.5nm Source for EUV Lithography based on a Dense Plasma Focus and Lithium Emission," <u>Sematech Intl. Workshop on EUV Lithography</u> (Oct. 1999).						
	AM	Hansson, et al., "Xenon liquid jet laser-plasma source for EUV lithography," <u>Emerging Lithographic Technologies IV, Proc. Of SPIE</u> , Vol. 3997:729-732 (2000).						
	AN	Kato, Yasuo, "Electrode Lifetimes in a Plasma Focus Soft X-Ray Source," <u>J. Appl. Phys.</u> (33) Pt. 1, No. 8:4742-4744 (1991).						
	AO	Kato, et al., "Plasma focus x-ray source for lithography," <u>Am. Vac. Sci. Tech. B.</u> , 6(1): 195-198 (1988).						
	AP	Lebert, et al., "Soft x-ray emission of laser-produced plasmas using a low-debris cryogenic nitrogen target," <u>J. App. Phys.</u> , 84(6):3419-3421 (1998).						
	AQ	Lebert, et al., "A gas discharge based radiation source for EUV-lithography," <u>Intl. Conf. Micro and Nano-Engineering 98</u> (Sept. 22-24, 1998) Leuven, Belgium.						
	AR	Lebert, et al., "Investigation of pinch plasmas with plasma parameters promising ASE," <u>Inst. Phys. Conf. Ser No. 125: Section 9</u> , pp. 411-415 (1992) Schiersee, Germany.						
	AS	Lebert, et al., "Comparison of laser produced and gas discharge based EUV sources for different applications," <u>Intl. Conf. Micro- and Nano-Engineering 98</u> (Sept. 22-24, 1998) Leuven, Belgium.						
	AT	Lee, Ja H., "Production of dense plasmas in hypocylodial pinch apparatus," <u>The Phys. Of Fluids</u> , 20(2):313-321 (1977)						
	AU	Lewis, Ciaran L.S., "Status of Collision-Pumped X-ray Lasers," <u>Am Inst. Phys. Pp.</u> 9-16 (1994).						
len	AV	Malmqvist, et al., "Liquid-jet target for laser-plasma soft x-ray generation," <u>Am. Inst. Phys.</u> 67(12):4150-4153 (1996)						
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len	AW	Mather, et al., "Stability of the Dense Plasma Focus," <u>Phys. Of Fluids</u> , 12(11):2343-2347 (1969).						
	AX	Mayo, et al., "A magnetized coaxial source facility for the generation of energetic plasma flows," <u>Sci. Technol.</u> Vol. 4:pp.47-55 (1994).						
	AY	Mayo, et al., "Initial Results on high enthalpy plasma generation in a magnetized coaxial source," <u>Fusion Tech</u> Vol. 26:1221-1225 (1994).						
	AZ	Nilsen, et al., "Analysis of resonantly photopumped Na-Ne x-ray-laser scheme," <u>Am Phys. Soc.</u> 44(7):4591-4597 (1991).						
	BA	Orme, et al., "Electrostatic charging and deflection of nonconventional droplet streams formed from capillary stream breakup," <u>Physics of Fluids</u> , 12(9):2224-2235, (September 2000).						
	BB	Orme, et al., "Charged Molten Metal Droplet Deposition As a Direct Write Technology", MRS 2000 Spring Meeting, San Francisco. (April 2000).						
	BC	Pant, et al., "Behavior of expanding laser produced plasma in a magnetic field," <u>Physica Scripta</u> , T75:104-111, (1998).						
	BD	Partlo, et al., "EUV (13.5nm) Light Generation Using a Dense Plasma Focus Device," <u>SPIE Proc. On Emerging Lithographic Technologies III</u> . Vol. 3676. 846-858 (March 1999).						
	BE	Porter, et al., "Demonstration of Population Inversion by Resonant Photopumping in a Neon Gas Cell Irradiated by a Sodium Z Pinch." <u>Phys. Rev. Lett.</u> 68(6):796-799. (Feb. 1992).						
	BF	Price, Robert H., "X-Ray Microscopy using Grazing Incidence Reflection Optics," <u>Am. Inst. Phys.</u> , pp. 189-199, (1981).						
	BG	Qi, et al., "Fluorescence in Mg IX emission at 48.340 Å from Mg pinch plasmas photopumped by Al XI line radiation at 48.338 Å," <u>The Am. Phys. Soc.</u> , 47(3):2253-2263 (March 1993).						
	BH	Scheuer, et al., "A Magnetically-Nozzled, Quasi-Steady, Multimegawatt, Coaxial Plasma Thruster," <u>IEEE: Transactions on Plasma Science</u> , 22(6) (Dec. 1994).						
	BI	Schriever, et al., "Laser-produced lithium plasma as a narrow-band extended ultraviolet radiation source for photoelectron spectroscopy," <u>App. Optics</u> , 37(7):1243-1248. (Mar. 1998).						
	BJ	Schriever, et al., "Narrowband laser produced extreme ultraviolet sources adapted to silicon/molybdenum multilayer optics," <u>J. of App. Phys.</u> 83(9):4566-4571 (May 1998).						
	BK	Silfvast, et al., "High-power plasma discharge source at 13.5 nm and 11.4 nm for EUV lithography," <u>SPIE</u> , Vol. 3676:272-275. (Mar. 1999).						
len	BL	Silfvast, et al., "Lithium hydride capillary discharge creates x-ray plasma at 13.5 nanometers," <u>Laser Focus World</u> , p. 13 (Mar. 1997).						
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